

## Tentative Lecture Schedule (2011)

It is expected that classes will follow the schedule noted below, but adjustments will be made during the term as required. Before attending the lectures, students are required to read in the textbook the material indicated for each topic.

Topic	Section	Page	Problems
Course Introduction, General Principles	1.1-1.6	3-15	1.7, 1.9, 1.13, 1.15, 1.17
Statics			
Vectors. Resultant. Components	2.1 – 2.4	17-42	2.3, 2.15, 2.30, F2.7, 2.34, 2.58
Cartesian Components, Position Vectors, Dot Product	2.5-2.9	43-81	F2.17, 2.62, F2.19, 2.91, F2.29, 2.130
Particle Equilibrium, FBD	3.1-3.2	85-88	F3.1, 3.15, 3.18
2D, 3D Force Systems,	3.3, 3.4	89-113	3.29, 3.36, F3.8, 3.59, 3.63
Cross Product, Moments, Triple Scalar Product	4.1-4.4	117-147	F4.2, F4.11, 4.31, 4.42, F4.13, 4.59
M about a line, Couple. Equivalence.	4.5-4.7	148-169	4.17, F4.19, 4.83, 4.99, F4.29, 4.106
Reduction. Wrench	4.8-4.9	160-182	4.110, 4.113, F4.31, 4.123, 4.141
Rigid body eqbm, FBD. Supports. 2D	5.1-5.3	199-223	F5.2, 5.2, 5.4, 5.19, 5.23, 5.27
2-Force & 3-Force members, 3D Supports	5.4-5.5	226-242	5.21, 5.26, 5.39, 5.43, F5.7
3D Equilibrium, Frames and Machines	5.6-5.7, 6.6	242-261	F5.11, 5.75, 5.79, 5.91, F6.15, 6.67
Frames and Machines	6.6	294-327	F6.18, 6.71, 6.106, 6.134
Internal Forces, distributed loads	7.1	329-344	F7.2, 7.2, F4.40, 4.14, 4.35
Centroids, Center of Gravity	9.1-9.2	447-469	F9.1, 9.5, 9.11, 9.25, 9.26, 9.38
Centroids of Composites	9.3	470-483	F9.7, 9.51, 9.66, 9.72, 9.127
Dynamics			
Rectilinear Kinematics	12.1-12.3	3 - 31	F12.6, 12.2, 12.41, F12.10, 12.50, 68
Curvilinear Motion (x-y)	12.4-12.6	32-52	F12.16, F12.22, 12.74, 12.87, 12.96
Curvilinear Motion (n-t, r- $\theta$ )	12.7-12.8	53-80	F12.27, 12.146, F12.34, 12.169, 174
Relative, Absolute Motion	12.9-12.10	81-105	F12.39, 12.202, 12.214, F12.45, 222
Particle Kinetics	13.1-13.4	107-130	F13.2, 13.3, 13.11, 13.31, 13.33
Equations of motion	13.5-13.6	131-154	F13.7, 13.51, 13.70, F13.13, 13.94
Work/Energy, Power/Efficiency	14.1-14.4	169-200	F14.1, 14.6, 14.29, F14.7, 14.11, 62
Potential Energy/Conservative Forces	14.5-14.6	201-220	F14.13, 14.81, 14.92, 14.96, 14.97
Impulse, Momentum	15.1-2 15.5-7	221-235	F15.2, 15.2, 15.9, 15.20, 15.30